

CLAIMS

1. (Canceled)

2. (Previously presented) Apparatus for joining a plurality of pieces of pipe,  
including:

a first piece of pipe and a second piece of pipe each having a similar size and shape  
sidewall corrugation pattern along their lengths;

a first female engagement structure formed from the sidewall corrugation pattern of the  
first piece of pipe; and

a male engagement structure formed from the sidewall corrugation pattern of the second  
piece of pipe,

the first female structure being temporarily deformed for receiving the male structure, the  
temporary deformation being both sufficiently large to permit the insertion of the male structure  
but also sufficiently small to ensure that material memory returns the first female structure  
toward its original non-deformed configuration with sufficient compressive force to grip the male  
structure and prevent its inadvertent removal from engagement with the first female structure,  
and

wherein the female structure includes an inwardly projecting engagement element at its  
leading edge acting between said first and said second pieces of pipe to increase the force  
necessary to disengage said pipe pieces from each other following assembly.

3. (Previously presented) The apparatus of Claim 2, in which said pipe sidewall corrugation  
pattern of each piece of pipe includes a corrugated exterior surface and an internal non-  
corrugated liner element.

4. (Canceled)

5. (Previously presented) The apparatus of Claim 2, in which said first piece of pipe includes a second female engagement structure remote from said first female structure, said second female structure also being temporarily deformed to function as a female structure for receiving a corresponding non-deformed end of a third piece of pipe, said third piece of pipe having a sidewall corrugation pattern along its length that is similar in size and shape to the sidewall corrugation pattern of said first and second pieces of pipe.

6. (Previously presented) The apparatus of Claim 2, including a sealing element positioned between confronting surfaces of said first and second pieces of pipe to help provide a watertight seal therebetween.

7. (Previously presented) The apparatus of Claim 2, including an adhesive material acting between confronting surfaces of said first and second pieces of pipe to bond said first and second pieces to each other upon insertion of said second piece into said female structure of said first piece of pipe.

8. – 34. (Canceled without prejudice)

35. (New) The apparatus of Claim 2, further including a stretching tool having a channel into which an edge of said first piece of pipe can be inserted in its originally fabricated shape, said tool including means to temporarily deform said edge of said first piece of pipe.

36. (New) The apparatus of Claim 35, including a plurality of rollers positionable along the inside and outside surfaces of said edge of said first piece of pipe, and further including means for exerting force to act between said rollers and said edge to deform said edge from its originally fabricated shape to eventually form a first female end.

37. (New) The apparatus of Claim 2, further including a temporary stretch-holding device having a first portion for temporary insertion into said temporarily deformed female structure of said first pipe piece, said first portion being sized and configured to retain a sufficient degree of deformation of said temporarily deformed female structure so that, upon removal of said temporary stretch-holding device from said temporarily deformed female structure, a non-deformed end of said second piece of pipe may be inserted into engagement with said female structure.

38. (New) The apparatus of Claim 37, in which said temporary stretch-holding device is fabricated with a sidewall corrugation pattern that is similar in size and shape to the sidewall corrugation pattern of said first piece of pipe, and further including a second portion to assist in desired removal of said device from said temporary insertion into said deformed female structure, said first portion includes a circumferential gap to allow a degree of compression of said corrugation pattern to facilitate the desired insertion into and removal from said female structure.

39. (New) The apparatus of Claim 37, in which said temporary stretch-holding device is fabricated with a sidewall corrugation pattern that is similar in size and shape to the sidewall corrugation pattern of said first piece of pipe, and further including a second portion to assist in desired removal of said device from said temporary insertion into said deformed female structure, said second portion includes an axially lengthwise cut to allow a degree of compression of said temporary stretch-holding device to facilitate the desired insertion into and removal from said female structure.

40. (New) The apparatus of Claim 37, further including a second portion having a strap element upon which force can be exerted to effect the desired removal of said temporary stretch-holding device from said deformed female structure.
41. (New) The apparatus of Claim 37, further including a second-portion having a grippable area upon which force can be exerted to effect the desired removal of said temporary stretch-holding device from said deformed female structure.
42. (New) The apparatus of Claim 37, wherein said temporary stretch-holding device is sized and configured for use as a cover over a pipe joint formed with said female structure after said device is removed from said temporary engagement within said female structure.